SUPPLEMENTAL GUIDELINES FOR SUBMITTING TYC SURVEY DATA TO THE NEVADA NATURAL HERITAGE PROGRAM

There are two very important issues that have hindered accurate and timely processing of TYC survey data in past years. Besides adhering to the established survey protocols and forms for the current year, your careful attention to these two points will ensure that your time and effort gathering survey data are well-spent.

1. THE GEODETIC DATUM in use by your GPS unit AND data-transfer/processing software (if any) MUST BE VERIFIED AND ACCURATELY RECORDED FOR EACH SURVEY. Failure to do this can result in horizontal location errors of 200 meters or more, which is not acceptable for the NNHP databases. Consult your equipment and/or software instructions to determine how to check and set datum -- it should not be difficult. Other than just not recording the datum, past problems may have resulted from one or more of the following:

> **A**. Some GPS equipment (Garmin eTrex and likely others) **automatically re-sets the datum** to WGS84 whenever the coordinate system is changed (say, from decimal degrees to UTM meters). To maintain a desired datum other than WGS84, the **datum must always be re-selected last, after all other GPS settings have been made**.
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> **B**. When data are transferred from the GPS to computer files and/or processing software, the data are often converted to the datum **set on the GPS at the time of transfer**, regardless of the setting when the data were first captured.
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> **C**. When data are saved to a file from processing software (such as MapSource for Garmins), they may be further converted to the datum currently specified in the software preferences (again, regardless of the GPS settings). **Datum should be verified at each of the above steps.**

For past surveys, we have requested that all GPS data be submitted using a common datum (NAD27). In part for the reasons above, this has not occurred, which has created time-consuming difficulties with interpreting the data received.

For new surveys, we still prefer that NAD27 be set in your GPS equipment AND software during data capture, transfer, and processing. **But our basic request is only that you DOUBLE CHECK AND RECORD THE ACTUAL DATUM at each step during capture, transfer, and processing.** We will convert to our internal datum as needed, but can only do this if the incoming datum is accurately known.

2. THE LOCATION OF EACH COORDINATE-PAIR RELATIVE TO THE TYC PLANTS BEING SURVEYED MUST BE CLEARLY SPECIFIED. Does the point represent a **group of plants?** (and within what approximate radius?) The **edge or corner of a patch of plants?** (which one? compass direction? what distance from nearest plant? which associated points are part of the same patch? If just one point, how far and in what directions does the patch extend from the point?) The **edge or corner of a surveyed area?** (same questions as above) **Part of a boundary polygon for a patch or survey area?** GPS coordinates can be added to the NNHP databases only if we know exactly what they mean.

Any new TYC survey data received by NNHP with significant problems in either of the above areas will be returned unprocessed for correction and re-submission.